

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Sarkozy, et al.

Attorney Docket:

STO-05RI

RECEIVED

Filed:

04/12/2001

Examiner:

Kim

MAY 2 1 2003

Serial No.:

09/832,812

Art Unit:

2185

Technology Center 2100

Title:

Apparatus and Method for Storing Data with Selectable Data Protection Using

Mirroring and Selectable Parity Inhibition

Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450

MAILING CERTIFICATE

I hereby certify that this correspondence is being deposited with the United States Postal Service First Class Mail in an envelope addressed to: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

Kristin Mattern

5/13/0

INFORMATION DISCLOSURE STATEMENT

Applicants wish to bring to the attention of the Patent and Trademark Office the information noted on the enclosed form PTO-1449 which may be considered material to the examination of the above-identified application.

Applicants acknowledge the large number of references cited in this Information Disclosure Statement. These references were provided to the Patent Owner by a defendant during litigation of the original 5,893,919 patent, and Applicants submit these references to comply with their duty of disclosure under 37 C.F.R. 1.56.

No fee is due at this time, as this Information Disclosure Statement is being filed pursuant to 37 C.F.R. § 1.97(b)(3), before the mailing of a first Office action on the merits.

REISSUE LITIGATION ART UNIT 2185

If the Examiner should have any questions, Applicants request that the Examiner contact Applicants' attorney at the address below.

Respectfully submitted,

Brian A. Carlson Attorney for Applicant Reg. No. 37,793

Slater & Matsil, L.L.P. 17950 Preston Rd., Suite 1000 Dallas, TX 75252 (972) 732-1001 (phone) (972) 732-9218 (fax)

PTO/SB/08A (02-03)

Approved for use through 4/30/2003. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

0		77.0		Complete	if Known
Sub	stitute for form 1449/	PTO		Application Number	09/832,812
INIT	ODMATION F	NOOL 04		Filing Date	4/12/2001
	ORMATION D			First Named Inventor	Sarkozy, et al.
	ATEMENT BY			Art Unit	2185
(4	ıse as many sheets	s as neces:	sary)	Examiner Name	Kim
Sheet	1	of	22	Attorney Docket Number	STO-05RI

			U.S. PATE	NT DOCUMENTS	
Examiner Initials*	Cite No.1	Document Number Number - Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1	US- 5,317,722	05-31-1994	Evans	
		US- 5,333,198	07-26-1994	Houlberg et al.	
		US- 5,657,468	08-12-1997	Stallmo et al.	
		US- 5,708,828	01-13-1998	Coleman	
	ļ	US- 5,720,025	02-17-1998	Wilkes et al.	
		US- 5,790,773	08-04-1998	DeKoning et al.	
		US- 5,983,283	11-09-1999	Senator, et al.	RECEIVED
		US- 6,115,797	09-05-2000	Kanda, et al.	
		US- 6,148,142	11-14-2000	Anderson	MAY 2 1 2003
		US-			MAI & I COOD
	ļ	US-			
		US-		T	echnology Center 2100
······································		US-			6011101233
		US-			

		FOREIG	N PATENT DOCU	IMENTS		
Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (<i>if known</i>)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	٦
						-
						_
***************************************	· · · · · · · · · · · · · · · · · · ·		- Lander - L			
	1					

Examiner	Date
Signature	Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 'Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

tanguage Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you are required to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.

SEND TO: Commissioner for Patents, Washington, DC 20231.

MAY 2 0 2003 W

PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB

inioi number.

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT
(use as many sheets as necessary)

Complete if Known

Application Number

99/832,812
Filing Date

4/12/2001

First Named Inventor

Group Art Unit

2185

Examiner Name

Kim Technology Context

Sheet 2 of 22 Attorn

Examiner Name
Attorney Docket Number

STO-05RI

ENT LITERATURE DOCUMENTS

LETTERS), title of the article (when appropriate), title of the symposium, catalog, etc.), date, page(s), volume-issue

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the	T ²
Examiner	Cite	item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue	1 ' 1
Initials*	No.	number(s), publisher, city and/or country where published.	+
		GIBSON, G.A., "Redundant Disk Arrays: Reliable, Parallel Secondary Storage," The MIT Press, Cambridge, Massachusetts (1992), pp. xvii-xxi and 1-288.	
		MATTHEWS, K.C., "Implementing a Shared File System on a HIPPI Disk Array," Fourteenth IEEE Symposium on Mass Storage Systems (1995), pp. 77-88.	
		Katz, R. H., "High-Performance Network and Channel Based Storage," Proceedings of the IEEE, Vol. 80, No. 8 (August 1992), pp. 1237-1261.	
		"Protocols for X/Open PC Interworking: SMB, Version 2," X/Open CAE Specification (1992) pp. 121-133, 135-149 and 151-177.	
		GIBSON, G.A., et al., "A Case for Network-Attached Secure Disks," School of Computer Science, Carnegie Mellon University (September 26, 1996) pp. 1-19.	
		"The RAIDBook: A Source Book for RAID Technology," Edition 1-1, The RAID Advisory Board, St. Peter, MN(November 18, 1993), pp. 1-110.	
		DRAPEAU, A.L., et al, "RAID-II: A High-Bandwidth Network File Server," IEEE (1994), pp. 234-244.	
:		COPELAND, G., et al., "A Comparison Of High-Availability Media Recovery Techniques," Association for Computing Machinery (May 1989), pp. 98-109.	
		COYNE, R.A., et al., "The High Performance Storage System," Association for Computing Machinery (April 1993) pp. 83-92.	
		CROCKETT, T. W., "File Concepts For Parallel I/O," Association for Computing Machinery (August 1989), pp. 574-579.	
		DAHLIN, M.D., et al., "A Quantitative Analysis of Cache Policies for Scalable Network File Systems," Association for Computing Machinery (May 1994), pp. 150-160.	

Examiner	Date
Signature	Considered

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 'Applicant's unique citation designation number (optional). 'Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated tot ake 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depnding upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB

CONTROL FIGURE							
Substitu	te for form 1449B/P	го		Comple	te if Known	المحادث	
		-		Application Number	09/832,812	RECE	VED
l in	IFORMATION !	DISCI	OSURF	Filing Date	4/12/2001	M 0 V 0 4	2222
	TATEMENT BY			First Named Inventor	Sarkozy et al.	MAY 2 1	. 20 03
	(use as many shee			Group Art Unit	2185		
				Examiner Name	Kim	Technology	enter 2100
Sheet	3	of	22	Attorney Docket Number	STO-05RI		

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite, No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		COMER, D. E., et al., "Uniform Access to Internet Directory Services," Association for Computing Machinery (August 1990), pp. 50-59.	
		KRONENBERG, N.P., et al., "VAXclusters: A Closely-Coupled Distributed System," ACM Transactions on Computer Systems, Vol. 4, No. 2 (May 1986), pp. 130-146.	
		KIM, W., "Highly Available Systems for Database Applications," Computing Surveys, Vol. 16, No.1 (March 1984), pp.71-98.	
		JOSHI, S.P., "The Fiber Distributed Data Interface: A Bright Future Ahead," IEEE (1986), pp. 504-512.	
		HUBER, J.V, Jr., et al., "PPFS: A High Performance Portable Parallel File System," Association for Computing Machinery (June 1995), pp. 385-394.	
		KING, R.P., et al., "Management of a Remote Backup Copy for Disaster Recovery," ACM Transactions on Database Systems, Vol. 16, No. 2 (June 1991), pp. 338-368.	
		SVOBODOVA, L., "File Servers for Network-Based Distributed Systems," Computing Surveys, Vol. 16, No. 4 (December 1984), pp. 353-398.	
		LANTZ, K.A, et al., "Towards a Universal Directory Service," Association for Computing Machinery (September 1985), pp. 250-260.	
		HOWARD, J.H., et al., "Scale and Performance in a Distributed File System," ACM Transactions on Computer Systems, Vol. 6, No. 1 (February 1988), pp. 51-81.	
		DAVIDSON, S.B., et al. "Consistency In Partitioned Networks," Computing Surveys, Vol. 17, No. 3 (September 1985) pp. 341-370.	
		TANENBAUM, A.S., et al., "Distributed Operating Systems," Computing Surveys, Vol. 17, No. 4 (December 1985), pp. 419-470.	

Examiner	Date	·
Signature	 Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line Patents, Washington, DC 20231*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 'Applicant's unique citation designation number (optional). 'Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated tot ake 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depnding upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

Sheet

PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB

22

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231

of

Complete if Known 09/832,812 **Application Number** RECEIVED 4/12/2001 Filing Date MAY 2 1 2003 Sarkozy et al. First Named Inventor 2185 Group Art Unit **Examiner Name** Kim Technology Center 2100 Attorney Docket Number STO-05RI

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite, No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	τ ²
, ,		LISKOV, B., et al., "Replication in the Harp File System," Association for Computing Machinery (1991), pp. 226-238.	
		NG, S., et al., "Trade-offs between Devices and Paths in Achieving Disk Interleaving," IEEE (February 1988), pp. 196-201.	
		MOHAN, C., "IBM's Relational DBMS Products: Features and Technologies," Association for Computing Machinery (May 1993), pp. 445-448.	
		MITCHELL, J.G., et al., "A Comparison of Two Network-Based File Servers," Communications of the ACM, Vol. 25, No. 4 (April 1982), pp. 233-245.	
		"NonStop Transaction Services/MP," Tandem Transaction Services Product Description (1994), pp. 1-6.	
		RAMAKRISHNAN, K.K., et al., "A Model of File Server Performance for a Heterogeneous Distributed System," Association of Computing Machinery (February 1986), pp. 338-347.	
		RICHARDS, J., et al., "A Mass Storage System for Supercomputers Based on Unix," IEEE (September 1988), pp. 279-286.	
		SANDHU, H.S., et al., "Cluster-Based File Replication in Large-Scale Distributed Systems," 1992 ACM Sigmetrics & Performance Evaluation Review, Vol. 20, No. 1 (June 1992), pp. 91-102.	
		POLYZOIS, C.A., et al., "Evaluation of Remote Backup Algorithms for Transaction-Processing Systems," ACM Transactions on Database Systems, Vol. 19, No. 3 (September 1994), pp. 423-449.	
		WEINSTEIN, M.J., et al., "Transactions and Synchronization in a Distributed Operating System," Association of Computing Machinery (December 1985), pp. 115-126.	

	and the same of th
Examiner	Date
Signature	Considered

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line Patents, Washington, DC 20231 EXAMINER: Initial in reference considered, whether or not cleations in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to ake 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depnding upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

BADEN

PTO/SB/08B (10-01) Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB

rol number.

Substitu	ite for form 1449E	3/PTO		Comple	te if Known	
				Application Number	09/832,812	RECE
IN	NFORMATIO!	N DISCLO	SURF	Filing Date	4/12/2001	
	TATEMENT			First Named Inventor	Sarkozy et al.	MAY 2
•	(use as many sh			Group Art Unit	2185	
	,		,	Examiner Name	Kim	Technology
Sheet	5	of	22	Attorney Docket Number	STO-05RI	

·		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS		
Examiner Initials*	item (hook manazine inurnal serial symnosium catalog etc.) date nage(s) yolume issuo			
		WALKER, B., et al., "The LOCUS Distributed Operating System," Association of Computing Machinery (June 1983), pp. 49-70.		
		HARTMAN, J.H., et al., "The Zebra Striped Network File System," ACM Transactions on Computer Systems, Vol. 13, No. 3 (August 1995), pp. 274-310.	***************************************	
		LEVY, E., et al., "Distributed File Systems: Concepts and Examples," ACM Computing Surveys, Vol. 22, No. 4 (December 1990), pp. 321-374.		
		"NCSA's Upgrade Strategy," Access (Fall 1994), pp. 1-3.		
		CHANDRA, A., "Connection Machines," Thinking Machines Corporation (May 16, 1996).		
		CHEN, P.M., et al., "A New Approach to I/O Performance Evaluation - Self-Scaling I/O Benchmarks, Predicted I/O Performance," ACM Transactions on Computer Systems, Vol. 12, No. 4 (November 1994), pp. 308-339.		
		"Foreground/Background Checking of Parity in a Redundant Array of Independent Disks-5 Storage Subsystem," IBM Technical Disclosure Bulletin, Vol. 38, No. 7 (July 1995), pp. 455-458.		
		"Limited Distributed DASD Checksum, a RAID Hybrid," IBM Technical Disclosure Bulletin, No. 4a (September 1992), pp. 404-405.		
***************************************		"Direct Memory Access Controller for DASD Array Controller," IBM Technical Disclosure Bulletin, Vol. 37, No. 12 (December 1994), pp. 93-98.		
		"Parity Read-Ahead Buffer for Raid System," IBM Technical Disclosure Bulletin, Vol. 38, No. 9 (September 1995), pp. 497-500.		

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

MAY 2 0 2003 us

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 6 of 22

Complete	if Known		
Application Number	09/832,812		
Filing Date	4/12/2001	RECE	VED
First Named Inventor	Sarkozy et al.		0000
Group Art Unit	2185	IV:AY 2	2003
Examiner Name	Kim		
Attorney Docket Number	STO-05RI	Technology	enter 2100

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite ₁ No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
		"Continuous Data Stream Read Mode for DASD Arrays," IBM Technical Disclosure Bulletin, Vol. 38, No. 6 (June 1995), pp. 303-304.	
		"Multibus Synchronization for Raid-3 Data Distribution," IBM Technical Disclosure Bulletin, No. 5 (October 1992), pp. 21-24.	
»··		"Direct Data Coupling," IBM Technical Disclosure Bulletin (August 1976), pp. 873-874.	
***************************************		"Redundant Arrays of Independent Disks Implementation in Library within a Library to Enhance Performance," IBM Technical Disclosure Bulletin, Vol. 38, No. 10 (October 1995), pp. 351-354.	
		"Design for a Backing Storage for Storage Protection Data," IBM Technical Disclosure Bulletin, No. 1 (June 1991), pp. 34-36.	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		"Data Volatility Solution for Direct Access Storage Device Fast Write Commands," IBM Technical Disclosure Bulletin, No. 12 (May 1991), pp. 337-342.	
		"Efficient Storage Management for a Temporal Performance Database," IBM Technical Disclosure Bulletin, No. 2 (July 1992), pp. 357-361.	
		"On-Demand Code Replication in a Firmly Coupled Microprocessor Environment," IBM Technical Disclosure Bulletin, Vol. 38, No. 11 (November 1995), pp. 141-144.	
		"Bounding Journal Back-Off during Recovery of Data Base Replica in Fault-Tolerant Clusters," IBM Technical Disclosure Bulletin, Vol. 36, No. 11 (November 1993), pp. 675-678.	

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

'Applicant's unique citation designation number (optional). 'Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated tot ake 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depnding upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

BADENIO control number.

PTO/SB/08B (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB

control mamber.						
Substitute	for form 1449B	/PTO		Complet	te if Known	5-1
				Application Number	09/832,812	RECLIVED
INF	ORMATIO	N DISCL	OSURE	Filing Date	4/12/2001	
STATEMENT BY APPLICANT (use as many sheets as necessary)				First Named Inventor	Sarkozy et al.	MAY 2 1 2003
				Group Art Unit	2185	
			Examiner Name	Kim	Technology Center 2100	
Sheet	7	of	22	Attorney Docket Number	STO-05RI	
						

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner	Cite,	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the	т2
Initials*	No.	item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue	'
	┼	number(s), publisher, city and/or country where published.	ļ
		"High-Speed Track Format Switching for Zoned Bit Recording," IBM Technical Disclosure Bulletin, Vol. 36, No. 11 (November 1993), pp. 669-674.	i
		"Technique for Replicating Distributed Directory Information," IBM Technical Disclosure Bulletin, No. 12 (May 1991), pp. 113-120.	
		"Fault Tolerance through Replication of Video Assets," IBM Technical Disclosure Bulletin, Vol. 39, No. 9 (September 1996), pp. 39-42.	
		"Dual Striping for Replicated Data Disk Array," IBM Technical Disclosure Bulletin, No. 345 (January 1993).	
		"Replication and Recovery of Database State Information in Fault Tolerant Clusters," IBM Technical Disclosure Bulletin, Vol. 36, No. 10 (October 1993), pp. 541-544.	
		"Threshold Scheduling Policy for Mirrored Disks," IBM Technical Disclosure Bulletin, No. 7 (December 1990), pp. 214-215.	
		"Method for Consistent Data Replication for Collection Management in a Dynamic Partially Connected Collection," IBM Technical Disclosure Bulletin, No. 5 (October 1990), pp. 454-464.	
		"Grouping Cached Data Blocks for Replacement Purposes," IBM Technical Disclosure Bulletin (April 1986), pp. 4947-4949.	
		"Zero-Fetch Cycle Branch," IBM Technical Disclosure Bulletin (August 1986), pp. 1265-1270.	
		"Cache Enhancement for Store Multiple Instruction," IBM Technical Disclosure Bulletin (December 1984), pp. 3943-3944.	
***************************************	***************************************	"Dynamic Address Allocation in a Local Area Network," IBM Technical Disclosure Bulletin (May 1983), pp. 6343-6345.	

Examiner	Data	
CAMILITIES	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line Training of the confirmance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated tot ake 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depnding upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Reteater Washington, DC 20231.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

MAY 2 0 2003 REAL CONTROL control number.

PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB

Substitute for form 1449B/PTO Complete if Known **Application Number** 09/832.812 4/12/2001 Filing Date INFORMATION DISCLOSURE First Named Inventor Sarkozy et al. 2003 STATEMENT BY APPLICANT 2185 Group Art Unit (use as many sheets as necessary) **Examiner Name** Kim Technology (enter 2100 8 22 STO-05RI Sheet of Attorney Docket Number

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS		
Examiner Initials*	I TO I I I I I I I I I I I I I I I I I I			
		"Multi Disk Replicator Generator Design," IBM Technical Disclosure Bulletin (March 1981), pp. 4683-4684.		
***************************************		"Continuous Read and Write of Multiple Records by Start Stop Buffers between Major and Minor Loops," IBM Technical Disclosure Bulletin (December 1980), pp. 3450-3452.	1	
		"Read Replicated Data Feature to the Locate Channel Command Word," IBM Technical Disclosure Bulletin (January 1980), p. 3811.		
		"Rapid Access Method for Fixed Block DASD Records," IBM Technical Disclosure Bulletin (September 1977), pp. 1565-1566.		
		"Multimedia Audio on Demand," IBM Technical Disclosure Bulletin, Vol. 37, No. 6B (June 1994), pp. 451-460.		
		"Asynchronous Queued I/O Processor Architecture," IBM Technical Disclosure Bulletin, No. 1 (January 1993), pp. 265-278.		
		"Service Processor Data Transfer," IBM Technical Disclosure Bulletin, No. 11 (April 1991), pp. 429-434.	 	
		"Hardware Address Relocation for Variable Length Segments," IBM Technical Disclosure Bulletin (April 1981), pp. 5186-5187.		
		"Swap Storage Management," IBM Technical Disclosure Bulletin (February 1978), pp. 3651-3657.		
		"Interface Control Block for a Storage Subsystem," IBM Technical Disclosure Bulletin (April 1975), pp. 3238-3240.		
		"Automated Storage Management," IBM Technical Disclosure Bulletin (February 1975), pp. 2542-2543.		

Examiner	Date	
Signature	 Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depnding upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

MAY 2 0 2003 W

Sheet

PTO/SB/08B (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB umber.

22

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

of

Complete if Known **Application Number** 09/832,812 RECHVED 4/12/2001 **Filing Date** First Named Inventor Sarkozy et al. 2003 MAY 2185 Group Art Unit **Examiner Name** Kim Technology Center 2100 STO-05RI Attorney Docket Number

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner	Cite	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the	T ²
Initials*	No.	item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue	. '
	<u> </u>	number(s), publisher, city and/or country where published.	
		"Takeover Scheme for Control of Shared Disks," IBM Technical Disclosure Bulletin (July 1989), pp. 378-380.	
		"General Adapter Architecture Applied to an ESDI File Controller," IBM Technical Disclosure Bulletin (June 1989), pp. 21-25.	
		"Multiple Memory Accesses in a Multi Microprocessor System," IBM Technical Disclosure Bulletin (November 1981), pp. 2752-2753.	
And the same of th	***************************************	"Control Interface for Magnetic Disk Drive," IBM Technical Disclosure Bulletin (April 1980), pp. 5033-5035.	
		"System Organization of a Data Transmission Exchange," IBM Technical Disclosure Bulletin (February 1963), pp. 35-38.	
		"Service Processor Architecture and Microcode Algorithm for Performing Protocol Conversions Start/Stop, BSC, SDLC," IBM Technical Disclosure Bulletin (May 1989), pp. 461-464.	
		"Shared Storage Bus Circuitry," IBM Technical Disclosure Bulletin (September 1982), pp. 2223-2224.	
		"Dynamically Alterable Data Transfer Mechanism for Direct Access Storage Device to Achieve Optimal System Performance," IBM Technical Disclosure Bulletin (June 1978), pp. 39-39.	
		"Multi-Level DASD Array Storage System," IBM Technical Disclosure Bulletin, Vol. 38, No. 6 (June 1995), pp. 23-24.	
		"Redundant Array of Independent Disks 5 Parity Cache Strategies," IBM Technical Disclosure Bulletin, Vol. 37, No. 12 (December 1994), pp. 261-264.	
		"Method for Data Transfer for Raid Subsystem," IBM Technical Disclosure Bulletin, Vol. 39, No. 8 (August 1996), pp. 99-100.	

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). *Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated tot ake 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depnding upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08B (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

STO-05RI

Technology Conter 2100

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB

AC BADE

10

Sheet

Complete if Known Substitute for form 1449B/PTO **Application Number** 09/832,812 Filing Date 4/12/2001 RECEIVED INFORMATION DISCLOSURE Sarkozy et al. First Named Inventor STATEMENT BY APPLICANT 2185 2003 Group Art Unit MAY 21 (use as many sheets as necessary) Kim **Examiner Name**

Attorney Docket Number

22

of

	OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS				
		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the	T ²		
xaminer	Cite	item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue	T		
nitials*	No.'	number(s), publisher, city and/or country where published.	上		
		STODOLSKY, D., et al., "Parity Logging Overcoming the Small Write Problem in Redundant Disk Arrays," 20 th Annual International Symposium on Computer Architecture (May 16-19, 1993), pp. 1-12.	i		
		MOGI, K., et al., "Hot Block Clustering for Disk Arrays with Dynamic Striping," Proceedings of the 21 st VLDB Conference, Zurich, Switzerland (1995), pp. 90-99.			
		DAHLIN, M.D., et al. "Cooperative Caching: Using Remote Client Memory to Improve File System Performance," First Symposium on Operating Systems Design and Implementation (OSDI) (November 14-17 1994), pp. 267-279.			
***************************************		WOOD, D.A., et al., "An In-Cache Address Translation Mechanism," The 13 th Annual International Symposium on Computer Architecture, Tokyo, Japan (June 25 1986), pp. 358-365.			
		CORBETT, P.F., et al., "Overview of the Vesta Parallel File System," Computer Architecture News, Vol. 21, No. 5 (December 1993), pp. 7-14.			
14 44444		PATTERSON, D.A., "Massive Parallelism and Massive Storage: Trends and Predictions for 1995 to 2000," Keynote Address, Second International Conference on Parallel and Distributed Information Systems, San Diego California (January 1993), pp. 6-7.			
		UITERWIJK, A., "RAID Storage System; Superflex 3000 Provides Dynamic Growth," InfoWorld (June 17, 1996), p. N/13.			
		FRANCIS, B., "SuperFlex Unveiled for RAID Market," InfoWorld (September 11, 1995), p. 38.	1		

Examiner	Date
Signature	Considered

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

'Applicant's unique citation designation number (optional). 'Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated tot ake 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depnding upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

ntrol number.

PTO/SB/08B (10-01) Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB

22

Substitute for form 1449B/PTO

11

Sheet

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

of

Complete if Known 09/832,812 Application Number RECEIVED 4/12/2001 Filing Date First Named Inventor Sarkozy et al. MAY 2 1 2003 Group Art Unit 2185 Examiner Name Kim Technology Center 2100 Attorney Docket Number STO-05RI

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner	Cite,	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the	т2
Initials*	No.	item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
		LEVINE, R., "Know Your RAID? You've Got it Made: The explosion in Network Storage Needs is Driving Business to VARs who Understand RAID Technology," VARBusiness (January 1, 1996).	
-41-44-44-44-44-44-44-44-44-44-44-44-44-		"AMI Introduces RAID Technology Disk Array," Worldwide Computer Product News (March 1, 1996).	
		"American Megatrends Inc. has Introduced FlexRAID, a New Adaptive RAID Technology," TelecomWorldWire (February 23, 1996).	
		"ABL Canada's VT2C Demonstrates Unparalleled Flexibility in a Major Application for the U.S. Government BTG Selected for Billion Dollar ITOP Program," Business Wire (May 24, 1996).	
		"American Megatrends' FlexRAID Advances RAID Technology to the Next Level; Adaptive RAID Combines Significant Firmware and Software Features," <i>PR Newswire</i> (February 22, 1996).	
		"American Megatrends' General Alert Software Maximizes Fault Tolerance; Watchdog Utility Significantly Reduces Reaction Time," <i>PR Newswire</i> (February 16, 1996).	
		"American Megatrends Capitalizes on World Wide Web Presence; AMI Site Open for Business with New Look and On-Line Purchase Options," <i>PR Newswire</i> (January 9, 1996).	
		"AMI Offers Detailed Support For SAF-TE RAID Standard; New Standard Will Reduce Error Reaction Time and Increase RAID System Safety," <i>PR Newswire</i> (October 30, 1995).	
=		"American Megatrends and Core International Jointly Develop RAIDStack(TM) Intelligent RAID Controller Board; Combination of AMI MegaRAID (TM) Hardware With Core Technology to Revolutionize RAID Market," <i>PR Newswire</i> (October 26, 1995).	
		"AMI Announces New MegaRAID Ultra RAID Controller; New SCSI PCI RAID Controller Breaks Speed and Technology Barriers," PR Newswire (October 3, 1995).	
		CROTHERS, B., "Controller Cards; AMI to Unveil DMI-Compliant RAID Controller," <i>InfoWorld</i> (October 9, 1995).	

Examiner	Date	
Signature	Considered	

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line Patents, Washington, DC 20231 EXAMINER: Initial in reference considered, whether or not citation is in conformatice with IMPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated tot ake 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depnding upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231.

ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08B (10-01) Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

12 22 Sheet of

Comple	ete if Known		
Application Number	09/832,812		
Filing Date	4/12/2001	HECE	VED
First Named Inventor	Sarkozy et al.	1101/ 0 1	2002
Group Art Unit	2185	WAY Z	2003

Examiner Name Kim Technology enter 2100 Attorney Docket Number STO-05RI

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite, No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		"American Megatrends Joins RAID Advisory Board," PR Newswire (September 20, 1995).	
14	***	CROTHERS, B., "AMI Moves into RAID Market with New Controller Design," <i>InfoWorld</i> (July 17, 1995).	
		GOLD, S., "HP's Smart Auto-RAID Backup Technology," Newsbytes News Network (August 4, 1995), pp. 1-2.	
		SAVAGE, S., et al., "AFRAID - A Frequently Redundant Array of Independent Disks," Usenix Technical Conference (January 22-26, 1996), pp. 27-39.	
		"Departmental Networks; 1996 Buyers Guide; Buyers Guide" LAN Magazine (September 15, 1996).	
		"Miniguide: RAID Products," Optical Memory News (July 16, 1996).	
		WHIPPLE, D., "EMC Leaps ahead in Market for Mainframe Storage," Business Dateline: Boulder County Business Report (June 1996).	
		BURDEN, K., et al., "RAID Stacks up; The Varied Approach of Ramac, Symmetrix and Iceberg Score Well with Diverse Users," Computerworld (February 26, 1996).	
		"EMC's RAID-S Attains an Industry First with RAID Advisory Board Conformance; Unique RAID-S Implementation is First Mainframe/Open Systems Feature to Receive RAID Level 5 Conformance Certification," <i>Business Wire</i> (December 11, 1995).	
		BABCOCK, C., "RAID Invade New Turf," Computerworld (June 19, 1995), p. 186.	

Examiner	Date	
O		
Signature	Considered	
	00110100100	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line Patents, Washington, DC 20231*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated tot ake 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

MAY 2 0 2003 RADE!

Sheet

PTO/SB/08B (10-01) Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Examiner Name 22 13 of

Complete if Known 09/832,812 RECHIVED **Application Number** Filing Date 4/12/2001 MAY 2 1 2003 First Named Inventor Sarkozy et al. Group Art Unit 2185 Technology Center 210 Kim Attorney Docket Number STO-05RI

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		ENTICKNAP, N., "Storing Up Trouble; IBM's Problems in the Disc Array Market," ASAP (May 11, 1995), p. 40.	
		"EMC Brings Top Performance to Mainframe Customers with Smaller Capacity Needs," Business Wire (April 17, 1995).	
		STEDMAN, C., et al., "Discount Days to End for EMC Customers," Computerworld (April 17, 1995), p. 4.	
		LAPOLLA, S., "DEC Broadens Storage Support; Scalable Storageworks Taps Multiplatform Server Data; DEC Storageworks RAID Array 410 RAID Array System; Brief Article; Product Announcement," ASAP, No. 6, Vol. 12 (February 13, 1995), p. 50.	
		STEDMAN, C., et al., "EMC Recasts RAID," Computerworld (January 30,1995), p. 1.	***************************************
		CALLERY, R., "Buying Issues Turned Upside Down; In The RAID World, Products Are Built to Fit the Data. In The Past, IBM Offered One-Size DASD for all Needs," <i>Computerworld</i> (January 30, 1995), p. 78.	
		"Making Up Lost Ground; New Redundant Arrays of Independent Disks Offerings from IBM; Includes Related Articles on Storage Companies, Approaches to RAID and IBM Storage Product Plans; Special Report: Storage," ASAP, Vol. 15; No. 7 (July 1994), p. S13.	
		STEDMAN, C., "New IBM Arrays Fall Short of Rival EMCs Performacne [sic]," Computerworld (June 13,1994), p. 6.	
		AMBROSIO, J., "IBM to Unveil First Host RAID Device," Computerworld (November 22, 1993), p. 1.	
		NASH, K., "EMC Ups Mainframe Storage Ante," Computerworld (November 16, 1992), p. 8.	

Examiner	 Date	
Signature	Considered	

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line

Applicant's unique citation of incommance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional).

Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated tot ake 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depnding upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached.

2 0 2003

Sheet

PTO/SB/08B (10-01) Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

14 22 of

			-
Complet	e if Known		
Application Number	09/832,812		
Filing Date	4/12/2001	RECE	VED
First Named Inventor	Sarkozy et al.	MAY 2	2000
Group Art Unit	2185	WAYZ	2003
Examiner Name	Kim		
Attorney Docket Number	STO-05RI	Technology	enter 2100

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner	Cito	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the	T ²
Initials*	Cite, No.	item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue	1
	-	number(s), publisher, city and/or country where published.	
		SULLIVAN-TRAINOR, M., et al., "Smaller, Faster, but not Cheaper; EMC's Symmetrix Storage Systems Beat IBM's Conventional DASD in Key Areas Expcept [sic] Cost and Ease of Customizing," Computerworld (June 15,1992), p. 72.	
		STERLICCHI, J., "US: Outlook; Column" ASAP (February 13, 1992) p. 22.	
		GILLIN, P., "EMC Upgrades 3990-like Disk Array by 60%," Computerworld (January 13, 1992), p. 160.	
		"EMC Brings Revolutionary Disk Array Storage System to Unisys 1100/2200 Market," <i>Business Wire</i> (September 9,1991).	
		CASEY, M., "In Real Life," Computerworld (August 19, 1991), p. 550.	
		MORAN, R., "PREPARING FOR A RAIDWhat Are the Benefits of Redundant Arrays of Inexpensive Disks?," <i>Information Week</i> (May 27, 1991), p. 280.	
		"EMC Sees Exceptional Customer Demand for Symmetrix Product Line; March 15 Price Increase Planned," Business Wire (February 13,1991).	
		TERESKO, J., et al.(ed.), "Next Generation in Data Storage," Industry Week (October 15,1990), p. 680.	
		"Two Years Ahead of Its Competitors' Projected Delivery Dates, EMC Unveils First 'RAID' Computer Storage System," <i>Business Wire</i> (September 25,1990).	
		"Best System Corp. purchases Encore Infinity R/T for 3D Virtual Realty [sic] in Motion Simulation Rides," Business Wire (September 17, 1996).	
		"Encore Expands Into New Gaming Market with Best System Inc. and Pacific System Integrators Inc.," Business Wire (September 10, 1996).	

Examiner	Date
Signature	Considered

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line Patents, Washington, DC 20231 EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated tot ake 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depnding upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

MAY 2 0 2003

CARANEN

PTO/SB/08B (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 15 of 22

Complet	e if Known	
Application Number	09/832,812	RECE
Filing Date	4/12/2001	- ILOL
First Named Inventor	Sarkozy et al.	MAY 2
Group Art Unit	2185	
Examiner Name	Kim	Technology
Attorney Docket Number	STO-05RI	

-Lenter 2100

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite, No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		"ENCORE COMPUTER CORPORATION: South African Farm Cooperative Buys Encore Infinity Data Storage System," M2 Presswire (September 9, 1996).	
		"Memorex Telex Sells Encore Infinity SP to Haindl," Business Wire (September 3, 1996).	
		"Encore Sells Data Sharing Infinity Storage System to Farm Cooperative in South Africa," Business Wire (August 20,1996).	
		"Encore Reports Second Quarter Financial Results; Product Revenues Increase - Service Declines," Business Wire (August 19,1996).	
		"Encore Computer Corp. Sells Infinity SP30 to 10 th Largest Software Company in Germany," <i>Business Wire</i> (July 11, 1996).	
		"Encore Sells Real-Time Systems to the French Navy, DCN-Direction Des Constructions Navales \$1 Million Contract," <i>Business Wire</i> (July 9, 1996).	
		"Gulf States Toyota, Inc. purchases Encore's Infinity SP Storage Processor with Data Sharing and Backup/Restore Capabilities," Business Wire (June 25, 1996).	
		"Encore Awarded a \$3 million Contract for Real-Time Computer Systems from EDF Nuclear Power in France," <i>Business Wire</i> (June 25, 1996).	
		"Pepsi-Cola General Bottlers Takes Advantage of Data Sharing Capability of Encore's Infinity SP30," Business Wire (June 11, 1996).	
		"Memorex Telex (UK) Ltd. to Sell Encore Infinity SP Storage Processors," <i>Business Wire</i> (June 3, 1996).	
		"Amcotec Sells Encore Infinity SP30 to General Accident South Africa," Business Wire (May 28, 1996)	

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated tot ake 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depnding upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

MAY 2 0 2003

PTO/SB/08B (10-01) Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known **Application Number** 09/832,812 RECHIVED Filing Date 4/12/2001 First Named Inventor Sarkozy et al. MAY Z 2185 Group Art Unit **Examiner Name** Kim STO-05RI Attorney Docket Number

Technology Center 2100

2003

Sheet		16	of	22	Attorney Docket Number	STO-05RI	Technology
					rate in a post of training	0.000	0,
			OTHER PRIOR	ART NON P	ATENT LITERATURE DOCUMEN	TS	
Examiner Initials*	Cite ₁ No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.					
		"Encore G Business I	ets \$3 Million O Wire (May 21, 1	rder for Londor	Underground; Safety Criteria Impo	ose Special Req	uirements,"
		"Encore Ro Wire (May	eports First Qua 15, 1996).	arter Financial F	Results; Records Initial Storage Pro	oduct Revenue,"	Business
***************************************		"KPT Inc. I <i>Wir</i> e (May	Purchases Enco 14, 1996).	ore Infinity SP3	0 Storage Processor for Print Serv	er Applications,"	Business
		MCHUGH,	J. "When It Wi	Il Be Smart to t	pe Dumb," <i>Forbes</i> (May 6, 1996).		
,		"Sikorsky I 1996).	Purchases Enco	ore Computer S	systems for Helicopter Simulation,"	Business Wire (April 22,
44.81		"Encore Ro 1996).	eports Year End	d Financial Res	ults\$100M Financing Completed	," Business Wire	(Apil 16,
		"Digital and Wire (April	d Encore Comp I 10, 1996).	uter to Market	nfinity Gateway for AlphaServer 80	000 Systems," B	usiness
		"ENCORE	GETS CONTR	ACT," Sun-Ser	ntinel (March 26, 1996), p. 3D.		
		"Northrop (Wire (Marc	Grumman Purcl ch 25,1996).	hases Encore S	Systems for U.S. and French Navy	E-2C Project," E	Business
		"Encore Ai Systems D	nnounces a Sim Data," <i>Business</i>	nple, Low Cost, Wire (February	Direct Internet Data Facility to Share 29, 1996).	are Mainframe a	nd Open
		"Encore Se Financial S	ells Infinity SP3 Savings from Ne	0 Storage Syst ew Storage Sys	em; ISC of Miami Realizes Operati tem," <i>Business Wire</i> (February 20	ng Efficiencies a , 1996).	ind

Examiner	··	Date	
Signaturo			
Signature		Considered	

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated tot ake 120 minutes to complete, including pathering, properties and submitting the completed application form to the USPTO. Time will vary depending upon the individual

the OSFTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFK 1.14. This conection is estimated tot are 120 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depinding upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

Sheet

of

PTO/SB/08B (10-01) Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

STO-05RI

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB

Substitu	Substitute for form 1449B/PTO	Comple					
				Application Number	09/832,812	REC	EIVED
IN	NFORMATION	DISCLO	SURE	Filing Date	4/12/2001		
	TATEMENT E			First Named Inventor	Sarkozy et al.	MAY 2	1 2003
	(use as many she			Group Art Unit	2185		
	·			Examiner Name	Kim	Technology	Center 2100
Sheet	17	of	22	Attorney Docket Number	STO-05RI		

Attorney Docket Number

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite, No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serlal, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	7
		"Encore Sells Infinity SP30 Storage System to GUVV in Germany," Business Wire (February 9, 1996).	
		"Encore Signs Memorex Telex Italia; Italian Distributor to Market the Infinity SP Storage Processor," Business Wire (February 6,1996).	
		"Encore Wins Award Valued at Over \$1M for PAC-3 Missile," Business Wire (January 29, 1996).	
		"Encore Wins Contract Valued at US\$500,000 from Ceselsa," M2 Presswire (January 25, 1996).	
		"Encore Wins Award Valued at \$500 Thousand from CESELSA," Business Wire (January 23, 1996).	
		"Encore Announces World's Fastest Single Board Computer System," Business Wire (January 10, 1996).	
		"Encore Announces Infinity R/T Sale to ENEL in Italy," Business Wire (December 18, 1995).	-
		"Encore Extends Storage Presence to Argentina," M2 Presswire (December 12, 1995).	
		"Encore Extends Storage Presence to Argentina; PANAM TECH to Sell Infinity SP Storage Processors," Business Wire (December 11,1995).	
***************************************		"Encore Announces Sale to Agusta Sistemi in Italy; Alpha AXP-Based Infinity R/T Selected for Simulation," Business Wire (December 4, 1995).	
***************************************		"Encore Announces System Sale to Letov in Czech Republic," Business Wire (November 27, 1995).	

Examiner	Date	
Signature	Considered	

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation is not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional).

Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated tot ake 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached.

WATE TRUM

PTO/SB/08B (10-01)

Complete if Known

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB

Sheet

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

2003 Group Art Unit 2185 Examiner Name Kim 18 22 of Attorney Docket Number STO-05RI

First Named Inventor

Application Number

Filing Date

Technology Center 2100

Sarkozy et al.

09/832,812

4/12/2001

RECEIVED

 $M\Delta Y$

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Cite Initials* No.		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	τ2
:		"Encore Ships Computer System for High Speed Magnetic Suspension Train," <i>Business Wire</i> (November 25, 1995).	
		"Encore Reports Third Quarter Financial Results; Encore Makes Progress in Building Storage Distribution," Business Wire (November 20, 1995).	
		DEPOMPA, B. "EMC Device Does Two Jobs-New Enterprise Storage Platform Can Handle Data from Mainframes and Unix Computer Systems," <i>Information Week</i> (November 20, 1995), p. 163.	
***************************************		"Encore Signs Major Distributor in Sweden; MOREX to Sell Infinity SP Storage Family," Business Wire (November 13, 1995).	
		STEDMAN, C., "EMC to Open Up Disk Arrays; Symmetrix 5000 Will Store Data From Multiple Platforms," Computerworld (November 6, 1995), p. 14.	
		"Encore Ships Systems to AeroSimulation; Contract Valued at \$1 Million Plus," Business Wire (October 31, 1995).	
		"Encore Wins Award from Lockheed Martin; \$2.4 Million Contract Awarded for MTSS Program," Business Wire (October 24, 1995).	
		"Encore Sets Agreement with Bell Atlantic Business Systems Services for Storage Systems," Business Wire (October 16, 1995).	
		"Encore Accelerates Paradigm Shift; Intelligent Storage Controllers Outfeature and Outperform All Fixed Function DASD Controllers," Business Wire (October 9, 1995).	
		"Encore Infinity SP40 Sets Industry Standard Performance Record for DASD Controllers," Business Wire (October 9, 1995).	
		"News Shorts," Computerworld (October 9, 1995), p.8.	

Examiner	Date
Signature	Considered

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231 EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line

'Applicant's unique citation in conformance and not considered, include copy of this form with next communication to applicant.

'Applicant's unique citation designation number (optional).

'Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated tot ake 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depnding upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

MAY 2 0 2003 RATE TRANSPOR

PTO/SB/08B (10-01) Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Complete if Known

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB

Sheet

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

of

19 22

Complet	e ii Kriowii		
Application Number	09/832,812		
Filing Date	4/12/2001	RECE	IVED
First Named Inventor	Sarkozy et al.	MAY	1 2002
Group Art Unit	2185	MAY 2	T 7003
Examiner Name	Kim	~	
Attorney Docket Number	STO-05RI	rechnology	Center 2100

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite, No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		"Encore Announces Entry Level Storage System That Revolutionizes Enterprise Wide Data Access; Provides Open Systems Users Direct Access to Mainframe Data," <i>Business Wire</i> (September 19,1995).	
		CAO, P., et al., "The TickerTAIP Parallel RAID Architecture," HP Laboratories Technical Report (November 1992), pp. 1-20.	
		BERSON, S., et al., "Fault Tolerant Design of Multimedia Servers," SIGMOD (1995).	
***************************************		CHEN, P.M., et al., "RAID: High-Performance, Reliable Secondary Storage," ACM Computing Surveys, Vol. 26, No. 2 (June 1994), pp. 145-185.	
		STAELIN, C., et al., "Clustering Active Disk Data to Improve Disk Performance," Department of Computer Science (September 20, 1990), pp. 1-25.	
		SELTZER, M., et al., "An Implementation of a Log-Structured File System for UNIX," 1993 Winter USENIX (January 25-29, 1993), pp. 1-18.	
		KOHL, J.T., et al., "HighLight: Using a Log-Structured File System for Tertiary Storage Management," (November 20, 1992), pp. 1-15.	
		BERSON, S., et al., "Staggered Striping in Multimedia Information Systems," Computer Science Department Technical Report, University of California (December 1993), pp. 1-24.	
		POLYZOIS, C.A., et al., "Disk Mirroring with Alternating Deferred Updates," Proceedings of the 19 th VLDB Conference, Dublin, Ireland (1993), pp. 604-617.	
		STODOLSKY, D., et al., "Parity Logging: Overcoming the Small Write Problem in Redundant Disk Arrays," 20 th Annual International Symposium on Computer Architecture (May 16-19, 1993), pp. 1-12.	

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated tot ake 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

THE TRANSME

PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB ontrol number.

Complete if Known Substitute for form 1449B/PTO Application Number 09/832.812 RECEIVED 4/12/2001 Filing Date INFORMATION DISCLOSURE First Named Inventor Sarkozy et al. STATEMENT BY APPLICANT 2003 MAY 2185 Group Art Unit (use as many sheets as necessary) **Examiner Name** Kim Technology Center 2100 Sheet STO-05RI of Attorney Docket Number

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner	0:1-	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the	Τ2
Initials* No	Cite ₁	item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue	I
	1	number(s), publisher, city and/or country where published.	上
·		HOLLAND, M., et al., "Parity Declustering for Continuous Operation in Redundant Disk Arrays," Proceedings of the 5th Conference on Architectural Support for Programming Languages and Operating Systems (1992).	ł
		GRAY, J., et al., "Parity Striping of Disc Arrays: Low-Cost Reliable Storage with Acceptable Throughput," Proceedings of the 16 th VLDB Conference, Brisbane, Australia (1990), pp. 148-161.	
	33573743334434	HARTMAN, J. H. "The Zebra Striped Network File System," Dissertation, University of California At Berkeley (1994), pp. i-ix and 1-147.	
	***************************************	"Data Link Provider Interface Specification," OSI Work Group, UNIX International (August 20,1991), pp. 1-174 and clxxv-vii.	
	***************************************	"Veritas [®] Volume Manager (VxVM [®]): User's Guide, Release 2.3," Solaris ™ (August 1996).	
		"IEEE Standard Dictionary of Measures to Produce Reliable Software," The Institute of Electrical and Electronics Engineers, Inc., New York, NY (April 30, 1989), pp. 1-37.	
**************************************		"IEEE Standard for Software User Documentation," The Institute of Electrical and Electronics Engineers, Inc., New York, NY (August 22, 1988), pp. 1-16.	
		"IEEE Standard for Software Unit Testing," The Institute of Electrical and Electronics Engineers, Inc., New York, NY (December 29, 1986), pp. 1-24.	
10.00		"IEEE Guide for Software Quality Assurance Planning," The Institute of Electrical and Electronics Engineers, Inc., New York, NY (February 1986), pp. 1-31.	
		"Fourteenth IEEE Symposium on Mass Storage Systems: Storage-at the Forefront of Information Infrastructures," Second International Symposium, Monterey, California (KAVANAUGH, Mary E. (ed.)) (September 11-14, 1995), pp. v-xi and 1-369.	

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line

Patents, Washington, DC 20231*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated tot ake 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depnding upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231

¹Applicant's unique citation designation number (optional). 2Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB

CRECE MACE

Substitute for form 1449B/PTO			Complete if Known				
				Application Number	09/832,812		
IN	FORMATION	N DISCL	OSURE	Filing Date	4/12/2001	RFC	EIVED
STATEMENT BY APPLICANT			First Named Inventor	Sarkozy et al.		., ,	
(use as many sheets as necessary)		Group Art Unit	2185	MAY 2	1 2003		
	·			Examiner Name	Kim		
Sheet	21	of	22	Attorney Docket Number	STO-05RI	Technolog	Center 2100

OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite ₁	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²	
		"IEEE Guide to Software Design Descriptions," The Institute of Electrical and Electronics Engineers, Inc., New York, NY (May 25, 1993), pp. i-v and 1-22.		
		"IEEE Guide for the Use of IEEE Standard Dictionary of Measures to Produce Reliable Software," Institute of Electrical and Electronics Engineers, Inc., New York (June 12, 1989), pp. 1-96.		
		"IEEE Guide to Software Configuration Management," The Institute of Electrical and Electronics Engineers, Inc., New York (September 12, 1988), pp. 1-92.		
A THE RESERVE OF THE PARTY OF T		"IEEE Standard for Software Quality Assurance Plans," Institute of Electrical and Electronics Engineers, Inc., New York, NY (August 17, 1989), pp. 1-12.		
		"IEEE Standard for Software Test Documentation," The Institute of Electrical and Electronics Engineers, Inc., New York, NY (December 3, 1982), pp. 1-48.		
		COLEMAN, S. and MILLER, S. (eds.), "Mass Storage System Reference Model, Version 4," IEEE Technical Committee on Mass Storage Systems and Technology (May 1990), pp. 1-38.		
		WILKES, J., et al., "Introduction to the Storage Systems Program," Computer Systems Laboratory, Hewlett Packard Laboratories (August 10, 1995), pp. 1-37.		
		IEEE Storage Systems Standards Working Group (Project 1244), "Reference Model for Open Storage Systems Interconnection: Mass Storage Systems Reference Model, Version 5," The Institute of Electrical and Electronics Engineers, Inc., New York, NY (September 8, 1994).		
		BEDOLL, R. F., "Mass Storage Support for Supercomputing," IEEE (September 1988), pp. 217-221.		
		BHIDE, A., et al., "An Efficient Scheme for Providing High Availability," Association for Computing Machinery SIGMOD (April 1992), pp. 236-245.		

Examiner	Date	-
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated tot ake 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depnding upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

MAY 2 0 2003 H

PTO/SB/08B (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 22 of 22 A

Complete if Known					
Application Number 09/832,812					
Filing Date	4/12/2001				
First Named Inventor	Sarkozy et al.				
Group Art Unit	2185				
Examiner Name	Kim				
Attorney Docket Number	STO-05RI				

OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS						
Examiner Initials*	Cite ₁ No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	т2			
		BORGERSON, B.R., et al., "The Architecture of the SPERRY UNIVAC 1100 Series Systems," IEEE (June 1979), pp. 137-146.				
		BARD, Y., "A Model of Shared DASD and Multipathing," Communications of the ACM, Vol. 23, No. 10 (October 1980), pp. 564-572.				
		CHERITON, D. R., UIO: A Uniform I/O System Interface for Distributed Systems," ACM Transactions on Computer Systems, Vol. 5, No. 1 (February 1987) pp. 12-46.				
	<u> </u> 	RECEIVED				
		MAY 2 1 2003				
		Technology Center 2100				

Examiner	Date	
Signature	Considered	

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated tot ake 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depnding upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.